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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,181	01/10/2002	Clayton R. Rogers	01-13	1571

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EXAMINER	
LUBY, MATTHEW D	

ART UNIT	PAPER NUMBER
3611	

DATE MAILED: 07/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/044,181	ROGERS ET AL.	
	Examiner	Art Unit	
	Matt Luby	3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 June 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *6,7,10 and 18-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5, 8, 9 and 11-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Claims 6-7, 10 and 18-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species group, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 7.

2. Applicant's election without traverse of Species I, Figure 2, claims 1-5, 8, 9 and 11-17 in Paper No. 7 is acknowledged.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2, 9, 12 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 2 recites the limitation "said steering means" in line 1. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 9 recites the limitation "said hydraulic accumulator" in line 2. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 12 recites the limitation "said rotary actuated control valve" in line 2. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 13 recites the limitation "said rotary actuated proportional control valve" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10 Claims 1-3, 8, 9, 12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Saita et al. (U.S. Patent 5,950,757).

11. Saita et al. disclose steering means which is a hydraulic power assisted steering system for use in a vehicle (col. 1, lines 6-9 and col. 2, line 56) including a pulley (5) powered by a crankshaft in the vehicle (col. 2, lines 63-65); a clutch (4) operably connected to the pulley (col. 2, lines 62-63); a hydraulic pump (9) operably connected to the clutch (col. 2, lines 66-67); and controlling means (17) for engaging and disengaging the clutch with the pulley and the hydraulic pump to provide hydraulic power to the system (col. 3, lines 18-21), wherein the controlling means is a hysteresis pressure switch (16 - col. 3, lines 40-45 and col. 4, lines 34-44 describe how the pressure switch, 16, and the control unit, 17, work to engage the clutch when the pressure within the passage, 10, is below a predetermined level and to disengage the clutch when the pressure is above a predetermined level, which is the very definition of pressure switch with a hysteresis), a hydraulic accumulator (12) operably connected to the hysteresis pressure switch to insure that hydraulic power is available when the clutch is

disengaged (Figure 1) and further including a check valve (11) operably connected to the hydraulic pump (Figure 1) to maintain hydraulic pressure in the hydraulic accumulator (12) when the clutch is disengaged (col. 3, lines 2-6 and col. 4, lines 1-11) and wherein the hydraulic accumulator dampens transients in the hydraulic system such that the need for hydraulic noise reducing components are not required (Applicants admit on page 2, lines 17-19 that this is an inherent characteristic of hydraulic accumulators and therefore the hydraulic accumulator of Saita et al. does this), wherein the actuated control valve is provide with a closed center to maintain pressure in the hydraulic accumulator until needed (col. 2, lines 55-56).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saita et al. in view of Gage et al. (U.S. Patent 4,303,089).

14. Saita et al. disclose all of Applicants' claimed invention except that the pressure switch is connected to an electrical power source that is the vehicle ignition control system. Gage et al. disclose that it is well known to connect a pressure switch (col. 4, line 22) to a source of electrical power that is the vehicle ignition control system (col. 4, lines 15-41) in order to supply energy to actuate the pressure switch when required (col.

4, lines 15-41 describe how this is done). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a source of electrical power embodied as the vehicle ignition control system for the pressure switch of the Saita et al. system, as taught by Gage et al., in order to supply energy to actuate the pressure switch when required.

15. Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saita et al. in view of Applicants' Admitted Prior Art (AAPA).

16. Saita et al. disclose that the system includes an actuated control valve (2) operably connected to the reservoir (24) and to the check valve (shown in Figure 1) and a power assist steering cylinder (3) operably connected to the actuated control valve and to a steering rack (an inherently obvious feature on all power steering systems of the type described in Saita et al.) to provide power assist steering to the vehicle. Saita et al. do not specifically disclose that the actuated control valve is a rotary actuated proportional control valve. AAPA disclose that it is well known to use a rotary actuated type proportional control valve connected to the reservoir of a hydraulic power steering system (Applicants' Prior Art Figure 1) in order to permit the flow of fluid and thereby turning of the wheels in response to the operator's input at the steering wheel by the complex valve mechanism (paragraphs 5-7). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a rotary actuated proportional control valve on the Saita et al. device, as taught by AAPA, in order to permit the flow of fluid and thereby turning of the wheels in response to the operator's input at the steering wheel by the complex valve mechanism.

17. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saita et al. in view of Applicants' Admitted Prior Art (AAPA).

18. Saita et al. disclose steering means which is a hydraulic power assisted steering system for use in a vehicle (col. 1, lines 6-9 and col. 2, line 56) including a pulley (5) powered by a crankshaft in the vehicle (col. 2, lines 63-65); a clutch (4) operably connected to the pulley (col. 2, lines 62-63); a hydraulic pump (9) operably connected to the clutch (col. 2, lines 66-67); a hysteresis pressure switch (16 - col. 3, lines 40-45 and col. 4, lines 34-44 describe how the pressure switch, 16, and the control unit, 17, work to engage the clutch when the pressure within the passage, 10, is below a predetermined level and to disengage the clutch when the pressure is above a predetermined level, which is the very definition of pressure switch with a hysteresis), a hydraulic accumulator (12) operably connected to the hysteresis pressure switch to insure that hydraulic power is available when the clutch is disengaged (Figure 1), a check valve (11) operably connected to the hydraulic pump (Figure 1) to maintain hydraulic pressure in the hydraulic accumulator (12) when the clutch is disengaged (col. 3, lines 2-6 and col. 4, lines 1-11), reservoir (24) containing hydraulic fluid, the reservoir being operably connected to the power steering pump (Figure 1), an actuated control valve (2) operably connected to the reservoir (24) and to the check valve (shown in Figure 1) and a power assist steering cylinder (3) operably connected to the actuated control valve and to a steering rack (an inherently obvious feature on all power steering systems of the type described in Saita et al.) to provide power assist steering to the vehicle, wherein the actuated control valve is provide with a closed center to maintain

pressure in the hydraulic accumulator until needed (col. 2, lines 55-56) and wherein the reservoir has a hydraulic fluid capacity equal to the difference between the maximum charged amount of hydraulic fluid and the minimum discharged amount of hydraulic fluid in the hydraulic accumulator (as is well known in hydraulic fluid power systems, either one reservoir is provided, as is done by Saita et al., which has the capacity to meet all system demands, or multiple reservoirs are provided to meet such demands). Saita et al. do not specifically disclose that the actuated control valve is a rotary actuated control valve. AAPA disclose that it is well known to use a rotary actuated type control valve connected to the reservoir of a hydraulic power steering system (Applicants' Prior Art Figure 1) in order to permit the flow of fluid and thereby turning of the wheels in response to the operator's input at the steering wheel by the complex valve mechanism (paragraphs 5-7). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a rotary actuated control valve on the Saita et al. device, as taught by AAPA, in order to permit the flow of fluid and thereby turning of the wheels in response to the operator's input at the steering wheel by the complex valve mechanism.

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matt Luby whose telephone number is (703) 305-0441. The examiner can normally be reached on Monday-Friday, 9:30 a.m. to 6:00 p.m..

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on (703) 308-0629. The fax phone numbers

for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications.

21. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Matt Luby
Examiner
Art Unit 3611

M.L.
June 26, 2003